

This e-mail is supported by NAVFAC's Alternative Restoration Technology Team (ARTT) to provide links to Technology Transfer (T2) tools and the latest information on policies, guidance, and training related to innovative technologies. The T2 topics highlighted in this issue will help support the ARTT's chartered goals of promoting the use of innovative technologies, removing barriers to implementing new technologies, and reducing cleanup costs, while remaining protective of the environment and human health.

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Vapor Intrusion Technical Resources

This is a special edition of the T2 e-mail to share a selection of useful links for vapor intrusion (VI) technical resources. Several Navy stakeholders provided feedback to the T2 survey that they were interested in technical resources to assist with addressing VI issues. VI is the migration of volatile chemicals from the subsurface (soil, soil gas, or groundwater) into the indoor air of buildings located in close proximity to the contamination. Navy and DoD policy and guidance are key resources for RPMs as listed below. NAVFAC has also prepared several products to facilitate the sharing of information on innovative VI site characterization and mitigation strategies.

Navy/DoD Policy and Guidance

[Navy/Marine Corps Policy on Vapor Intrusion \(April 2008\)](#)

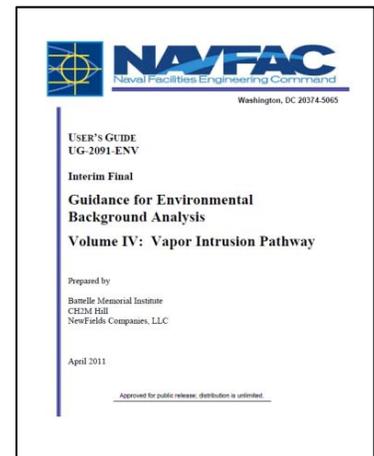
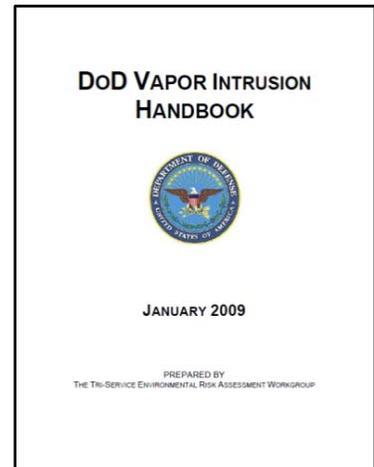
The policy states that detected chemicals must be associated with a Navy environmental release and that a VI evaluation can be considered at any point in the environmental restoration process.

[DoD Vapor Intrusion Handbook](#)

The VI Handbook uses a three-tiered approach to assess human health risks related to the VI pathway. The tiered approach allows sites with acceptable risk to be screened out and provides a multiple lines of evidence approach that should be incorporated into the decision-making process. Specific topics addressed in the handbook include: screening-level VI assessments, site-specific VI studies, health risk assessments, risk management, risk communication, and VI mitigation techniques.

[Guidance for Environmental Background Analysis Volume IV: Vapor Intrusion Pathway](#)

Background indoor air contamination is everything unrelated to the subsurface soil gas that migrates into a structure. Background analyses are essential for distinguishing between indoor air that has been impacted by a site-related chemical release versus unrelated indoor sources. This guide focuses on methods such as exploratory data, forensic, and statistical analyses that can be used to evaluate whether observed indoor concentrations can be attributed to VI or background sources.



NAVFAC Technical Resources

[Innovative Vapor Intrusion Site Characterization Methods](#)

This fact sheet provides an overview of several emerging and innovative methods for the characterization of indoor air at potential VI sites. These methods include passive sampling, use of a portable gas chromatography/mass spectrometry (GC/MS) instrument, use of building pressure control techniques, hydrocarbon fingerprinting, compound specific isotope analysis (CSIA), and radon sampling.

[NAVFAC Video: Investigating Vapor Intrusion: Portable GC/MS](#)

The purpose of this video is to provide a quick overview of how to use a portable GC/MS device for distinguishing background sources of volatile organic compounds (VOCs) and to highlight the value of real-time data collection for VI sites.

[Vapor Intrusion Mitigation in Existing Buildings](#)

This fact sheet reviews methods that can be used to mitigate VI in existing buildings, along with important considerations for selecting and designing an appropriate mitigation system.

[Vapor Intrusion Mitigation in Construction of New Buildings](#)

This fact sheet provides an overview of VI mitigation methods that can be integrated during the construction of new buildings, along with important factors to consider when selecting and designing these systems.



Other Technical Resources

[DoD SERDP Cleanup Initiatives: Vapor Intrusion](#)

[ITRC Vapor Intrusion Pathway: A Practical Guideline](#)